MEMORANDUM

TO: Members, Full Committee on Resources

DATE: March 7, 2001

SUBJECT: Oversight hearing on the Role of Public Lands in the Development of a Self-Reliant Energy Policy.

BACKGROUND

Role of Fossil Fuel Production and Natural Gas

Fossil fuels provide about 85 percent of the energy Americans use, and future demand in the U.S. is projected to rise well into the next century. Though alternative energy sources are gaining in importance, fossil fuels will continue to be a major energy source for this generation and those to come. The U.S. Energy Information Agency (EIA) forecasts that by 2020 domestic petroleum demand will increase 33 percent, natural gas demand will increase 62 percent and coal demand will increase 22 percent, even after healthy increases in renewable energy supplies (26%) and energy efficiency (29%).

America's largest source of domestically produced energy is coal at an estimated 4 trillion tons. Current recoverable reserves are 304.6 billion tons, and should last 270 years at current rates of use. Coal- fired power accounts for 57.3 percent of the electricity Americans use and typically costs 50 percent less than natural gas or oil. At current prices, coal power is about one-fifth the cost of these other resources.

The United States is experiencing a steep decline in oil production and critical shortages of natural gas. Presently, crude oil production averages about 5.8 million barrels per day - a rate not seen since the early 1950's. Meanwhile, increases in gas demand are outpacing production, which has fallen 14 percent on an annual basis since 1973. Increasingly frequent shortages and record high natural gas prices have resulted.

Is the United States running out of oil and natural gas? According to many geologists and petroleum engineers, U.S. production of oil and gas in the future will equal the amount that has been produced since the first well was drilled in 1859. Recent estimates of this resource (including proven reserves) indicate total supplies of 204 billion barrels of oil and 1,295 trillion cubic feet of natural gas -- about half in known fields and half from new discoveries. This is enough to sustain a sizeable domestic oil and gas industry for more than 50 years.

Much of the petroleum and natural gas resource base is on federal land or the submerged lands of federal waters. A primary reason for declining oil production and natural gas shortages is that more and more potentially resource rich land and submerged lands in the United States, are closed to both assessment and/or development.

Land withdrawals, development moratoria, and regulatory restrictions on land use prohibit development of significant oil and gas resources in areas like the eastern front of the Rocky Mountains, the Arctic Coastal Plain of Alaska and much of the Atlantic and Pacific submerged lands.

- An estimated 40 percent of our gas resources in the Rocky Mountain Front are off limits to development.

- The U.S. Geological Survey estimates that up to16 billion barrels of recoverable oil lies beneath Alaska's Arctic Coastal Plain within the Arctic National Wildlife Refuge.

- Essentially all of the Atlantic and Pacific Outer Continental Shelf and nearly all of the eastern Gulf of Mexico are withdrawn from oil and gas leasing through June 30, 2012.

Our public lands and outer continental shelves represent the best "hunting ground" for new discoveries of federally owned mineral resources. However, they are all too often posted "No Hunting." Even when the public lands are opened, often the land-use plans governing BLM and Forest Service approvals of permitting for drilling and mining have been deemed inadequate because the agency had not forecasted such development. Inordinate delays occur because plans must be re-analyzed to anticipate the cumulative impacts of the pending activity. Meanwhile the nation goes without new sources of oil, gas, or coal supply and citizens everywhere pay the price.

Role of Hydropower in the Development of a Self-reliant Energy Policy

Hydropower represents about 10 percent of the nation's electricity and about 80 percent of its renewable energy. Overall, 98,200 Megawatts of power is produced from hydro facilities - enough electricity for 98 million homes. Hydropower facilities also provide irrigation, transportation, water supply, and recreation benefits.

A Department of Energy (DOE) study shows that there are approximately 21,000 MW of potential capacity at existing dams. Over 4,300 of those megawatts are at existing hydro facilities. Much of this potential generation - over 10,000 MW's - is located in the west.

Many of the agencies that fall under the jurisdiction of the Resources Committee are involved in the Federal Energy Regulatory Commission (FERC) re-licensing of hydropower facilities. These agencies include, but are not limited to, the U.S. Fish and Wildlife Service, the Bureau of Land Management, and the U.S. Park Service, U.S. Forest Service and the National Marine Fisheries Service. The Department of Interior and Commerce provide to FERC "mandatory conditions" for re-licensing under Section 18 of the Federal Power Act. Similarly, the USFS provides mandatory conditions under Section 4(e) of the Act. At times, these agencies have provided conditions that have been diametrically opposed to each other, or with mitigation/operational costs that make it difficult for both small and large facilities to continue operation. In addition, several hydropower facility operators argue that re-licensing efforts have taken an inordinate amount of time and reduce the availability of this important resource.

The Role of Federal Hydropower

The Federal government began to market electricity after Congress authorized the construction of dams and established major water projects, primarily in the 1930s to the 1960s. The Bureau of Reclamation and the Corp of Engineers operate these projects to provide or manage water for such multiple purposes as irrigation, flood control, navigation, recreation, water supply, and environmental enhancement. These agencies also generate electricity at about 130 hydropower plants. The Power Marketing Administrations sell power that is not used for projects' purposes to "preference customers"- cooperatives and public bodies, such as municipal utilities, irrigation districts, and military installations. The federal government today markets about 10 percent of the nation's power through the PMAs as well as the Tennessee Valley Authority (TVA)- a wholly owned federal corporation that generates and markets federal power in Tennessee and parts of six other southeastern states.

Western Area Power Administration

Over the last several years operations at Federal power facilities have been impacted by the Endangered Species Act. In 1996, the Department of Interior issued a Record of Decision that reduced the generating capacity at Glen Canyon Dam by 456 megawatts, 1/3 of its capacity, primarily for environmental reasons—including fish flows and sand bars. One megawatt is roughly the energy required to supply one thousand homes. It is estimated that the reoperation of this facility cost an estimated $100 million annually.

Bonneville Power Administration

Similar to Glen Canyon Dam, the capacity to generate power at our Federal facilities in the Pacific Northwest has been reduced due to constraints for environmental reasons. The cost of electricity has increased due to this lost capacity and other factors including increased demand. To reduce the price impact, BPA is offering $75/MWh (average) to buy power back from irrigators. Irrigation uses 500 MW of Bonneville power on average during the year. The number of participants is capped at 10-15% (about 60,000 acres) to reduce impacts to the agricultural economy.

Federal Land Policy and the Development of a Self-reliant Energy Policy

The Federal Land Policy and Management Act of 1976 (FLPMA) delineated the mission of the Bureau of Land Management (BLM). In FLPMA, the BLM is statutorily directed to manage the public lands for multiple use and sustained yield.

The federal government owns 650 million of the 2.3 billion acres of land in the United States (about 28 percent). Of that, the BLM manages 264 million acres (more than 12% of the entire land base in the US) and an additional 560 million acres of subsurface mineral estate- more land than any other Federal agency. Since 1960, the major land agencies (i.e., BLM, Forest Service,

National Park Service, and the Fish and Wildlife Service) have added 33.6 million acres to their holdings (an area nearly the size of Florida).

Adding to the federal estate does not automatically mean that land is conserved or that valuable resources are protected. Acquisition and conservation are not synonymous terms. Even as budgets for our land management agencies soar into the billions, poor federal land stewardship is widely documented. For example, our National Park System has a $5 billion maintenance backlog, millions of acres of national forests are at risk to catastrophic wildlife, and a majority of our federal grazing lands are in less than fair condition (e.g. invasive weeds).

To many Americans, conservation is the protection and preservation of a natural area so that it may be used for any number of purposes, such as recreation, wildlife habitat, or commodity production (i.e. oil and gas extraction). In short, land conservation requires management and funds dedicated for the care of the land - not just preservation of the land. The BLM should manage the public lands for a variety of uses, including recreation and commodity uses such as mining, grazing, and logging. Balancing these uses toward sustained yield is the primary mission of BLM.

Unfortunately, for the last eight years, the BLM has demonstrated a shift away from its statutorily mandated goals of multiple use and sustained yield toward a policy of focusing on eliminating legitimate use of the public lands. For example, utilizing and in many cases abusing the Antiquities Act, the Clinton Administration from 1996 through 2000, designated millions of acres of federal land as monuments, thereby severely restricting future commodity use, and seriously hindering our Nation's ability to utilize known deposits of oil and gas to become more energy self sufficient. The federal government already owned and controlled these lands and had the discretion of prohibiting any management activities or development if they so desired. It is clear that the these lands were not threatened by development, and that the Clinton Administration had no clear reason to take this action other than close off the land to most public uses.

A consequence of a this far reaching protectionist land policy that is rarely discussed is that while the land is "protected" the people that rely on the land are not. For example, in the United States, independent petroleum producers, who depend on fee, state, federal and Indian lands to explore, develop and produce oil and gas, represent 85 percent of domestic oil and natural gas wells and produce approximately 40 percent of domestic oil and 75 percent of domestic natural gas. In light of our Nation's current energy crisis, this certainly will only make it worse and increase our future dependence on foreign energy resources.

The Role of Biomass Energy in Providing for a Self-reliant Energy Policy

One underutilized source for additional domestic energy production is the biomass – living and dead woody material on the forest floor or in the forest understory – that has accumulated to unnaturally high levels in many forested regions. Such material is particularly abundant in the forests of the interior West, due largely to decades of successful fire suppression on Federal

lands. Removal of small woody material from the national forests would achieve two important objectives: (1) provide a renewable source of fuels for energy production; and (2) reduce the fire hazard in our national forests and increase the health and safety of nearby communities.

In Fiscal Year 2001 alone, the USDA Forest Service and agencies in the Department of the Interior plan to spend $401 million to reduce hazardous fuels on approximately 3.2 million acres of Federal lands (the Forest Service plans to treat 1.8 million acres and another 1.4 million acres will be treated by Department of the Interior). While treatments vary from prescribed burning to hand cutting of brush to the harvest of small but merchantable trees, much of the material to be removed is too dense to safely burn, and too small to sell for timber values. If biomass markets were available, much of this otherwise-unmerchantable material could generate significant monetary value that would offset the costs of its removal while providing additional energy production in rural areas. Energy production from these forest fuels would also help reduce smoke emissions by reducing the amount of fuels available to wildfire and instead burning them in the emission-controlled environment of an energy-generating plant. A portion of the $35 million allocated by the National Fire Plan in 2001 to the Forest Service for community assistance will be used to fund a series of pilot projects promoting biomass utilization for energy production.

Currently biomass energy contributes 3% of U.S. energy production (and 38% of the energy generated from renewable fuels). Of this, 34% is fueled by wood from mill residues and forests. With existing facilities located in the Northeast, Southeast and on the West Coast, the buildup of forest fuels in the inland West may provide new opportunities for energy development.